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Service Commission

*Exhibit No.:*

*Issues: Low-Income Program;  
Large Customer  
Annualization*

*Witness:*

*Anne E. Ross*

*Sponsoring Party:*

*MoPSC Staff*

*Type of Exhibit:*

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*Case No.:*

*GR-2004-0072*

*Date Testimony Prepared:*

*January 6, 2004*

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY OPERATIONS DIVISION**

**DIRECT TESTIMONY**

**OF**

**ANNE E. ROSS**

**AQUILA, INC. D/B/A AQUILA NETWORKS MPS  
AND AQUILA NETWORKS L&P**

**CASE NO. GR-2004-0072**

**Jefferson City, Missouri  
January 2004**

**Exhibit no. 51**  
**Date 3-30-04 Case No. GR-2004-0072**  
**Reporter KF**

**BEFORE THE PUBLIC SERVICE COMMISSION**  
**OF THE STATE OF MISSOURI**

In the Matter of Aquila, Inc. d/b/a Aquila )  
Networks - MPS and Aquila Networks - )  
L&P Natural Gas General Rate Increase )

Case No. GR-2004-0072

**AFFIDAVIT OF ANNE E. ROSS**

**STATE OF MISSOURI** )  
  ) ss  
**COUNTY OF COLE**             )

Anne E. Ross, of lawful age, on her oath states: that she has participated in the preparation of the foregoing testimony in question and answer form, consisting of 9 pages of testimony to be presented in the above case, that the answers in the foregoing testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

Anne E. Ross  
Anne E. Ross

Subscribed and sworn to before me this 5<sup>th</sup> day of January, 2004.

Dawn L. Hake  
Notary Public

My commission expires \_\_\_\_\_  
My Commission Expires Jan 9, 2005

**DAWN L. HAKE**  
Notary Public - State of Missouri  
County of Cole

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**DIRECT TESTIMONY OF**

**ANNE E. ROSS**

**AQUILA, INC. D/B/A AQUILA NETWORKS MPS  
AND AQUILA NETWORKS L&P**

**CASE NO. GR-2004-0072**

ADJUSTMENTS TO LARGE CUSTOMERS ..... 2  
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1 **DIRECT TESTIMONY**

2 **OF**

3 **ANNE E. ROSS**

4 **AQUILA, INC. D/B/A AQUILA NETWORKS MPS**  
5 **AND AQUILA NETWORKS L&P**

6 **CASE NO. GR-2004-0072**  
7

8 Q. Please state your name and business address.

9 A. Anne E. Ross, P.O. Box 360, Jefferson City, Missouri 65102.

10 Q. By whom are you employed and in what capacity?

11 A. I am a Regulatory Economist with the Missouri Public Service  
12 Commission (Commission).

13 Q. Please describe your educational background.

14 A. I graduated from the University of Missouri-Columbia in 1986 with an  
15 undergraduate degree in Business Administration. I graduated with a Masters of  
16 Business Administration in 1989.

17 Q. Please describe your work experience.

18 A. I have been employed with the Commission as a Regulatory Economist  
19 since 1989. I have also been an adjunct professor at Columbia College since 1989.

20 Q. What has been the nature of your duties while in the employ of the  
21 Commission?

22 A. The general nature of my duties at the Commission have included Class  
23 Cost of Service, Rate Design, Large Customer Analysis, and the design of programs for  
24 lower income natural gas customers.

25 Q. Have you previously filed testimony before this Commission?

Direct Testimony of  
Anne E. Ross

1 A. Yes. Schedule 1 is a list of the gas cases in which I have filed testimony.

2 Q. What is the purpose of your direct testimony?

3 A. The purpose of my direct testimony is twofold. First, I will describe the  
4 revenue adjustments that the Staff is proposing for the Company's General Service –  
5 Industrial Sales, Large Volume Sales, Large Volume Transportation, and Special  
6 Contract Transportation customers. In addition, in this case I am sponsoring an  
7 experimental weatherization/rate design/arrange forgiveness program designed to help  
8 lower-income customers afford to heat their homes in the winter. One of the important  
9 components of the program is lowering a customer's usage by providing adequate  
10 weatherization measures. I will discuss this part of the program in this direct testimony,  
11 and the rest of the program design in direct testimony that I will file next week.

12 **ADJUSTMENTS TO LARGE CUSTOMERS**

13 Q. What types of modifications are made to large customer's test year usage?

14 A. Typical adjustments include adjustments for customers coming on or  
15 going off the system during the test year; for accounts that take service on more than one  
16 tariff during the year; and weather normalization.

17 Q. What is done if a customer comes on the system during the test year?

18 A. In this instance, billing units and revenues are increased to reflect a full 12  
19 months of usage.

20 Q. What is done if a customer goes off the system during the test year?

21 A. In that case, the customer's billing units, and the associated revenue, are  
22 decreased, since the customer is no longer on the system, and will not provide any  
23 revenue for the Company.

Direct Testimony of  
Anne E. Ross

1 Q. What type of adjustment is made if a customer takes service under two or  
2 more rate codes during the test year?

3 A. This is called rate-switching. In this case, the customer's usage and  
4 revenue is removed from the original class, and added to that of the new class, as it is  
5 assumed that, in a normal year, the customer will take service under only one tariff.

6 Q. Why would customers switch from one rate to another?

7 A. Rate switching, can occur for several reasons. The nature of a customer's  
8 operations may have changed, and taking service under another tariff is now more  
9 appropriate. The customer may find it to be economical to switch to another customer  
10 class. Finally, the customer may decide to procure its own gas, which would also make a  
11 rate switch necessary.

12 Q. Are you sponsoring Staff adjustments to reflect rate-switching and  
13 customer additions or losses?

14 A. Yes. In the Aquila Networks - MPS North & South districts (MPS -  
15 N&S), adjustments S-2.5 and S-6.4 reflects the revenue effect resulting from customers  
16 switching to and from the Company's Large Volume - Sales and Large Volume -  
17 Transportation classes. Adjustment S-6.2 adjusts Large Volume - Transportation  
18 revenues to reflect the loss of an MPS - N&S customer during the test year. In the  
19 Aquila Networks - L&P (L&P) district, adjustment S-2.6 and S-5.2 reflects the revenue  
20 effect resulting from customers switching to and from the Company's Large Volume -  
21 Sales and Large Volume - Transportation classes. There were no adjustments made to  
22 the Aquila Networks - MPS Eastern district (MPS - E.)

23 Q. Have you considered adjustments for weather normalization?

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Anne E. Ross

1           A.     Yes, I reviewed Company witness Sullivan's weather normalization of  
2 these classes. Although I do not agree with all of the detailed calculations he performed,  
3 the overall effect of the weather normalization for the large customers was negligible.  
4 Based on the small dollar impact of the adjustments, and the constraints on Staff's  
5 manpower resources, I find Mr. Sullivan's weather normalization adjustments to the large  
6 customers to be reasonable, and I am making the same adjustments to the Staff numbers.

7           Q.     Which adjustments reflect weather normalization?

8           A.     In the MPS - N&S EMS run, adjustments S-2.4, S-6.3 and S-6.5 reflect the  
9 weather adjustment. In the MPS-E district, adjustment S-6.2 adjusts transportation  
10 revenues for weather. The L&P district General Service – Industrial, and Large Volume  
11 – Commercial were weather-normalized in adjustments S-2.4 and S-2.5.

12          Q.     Does this conclude your direct testimony on adjustments to large customer  
13 usage?

14          A.     Yes.

15           **PROPOSED WEATHERIZATION PROGRAM**

16          Q.     You stated earlier that you are sponsoring an experimental program for  
17 lower-income Aquila customers, and that you will discuss the weatherization component  
18 in this filing.

19          A.     As part of an overall experimental program, Staff is proposing that  
20 \$50,000 be earmarked for weatherization in the Sedalia area. For the MPS – N&S  
21 District, this revenue adjustment is S-51.1. For the L&P District, this is reflected in  
22 adjustment S-49.1.

23          Q.     Why is weatherization important to this type of program?

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1           A.     The installation of permanent, cost-effective efficiency weatherization  
2 measures is an excellent long-term action to address the problem of unaffordable natural  
3 gas bills, and should be a part of any program designed to assist certain low-income  
4 customers in paying their utility bills.

5           Q.     How much, on average, does it cost to weatherize a home in Missouri?

6           A.     In Missouri, the average cost to weatherize a home is \$2,500.

7           Q.     What is the estimated life of weatherization measures that might be part of  
8 this experimental program?

9           A.     Weatherization measures have a life of about 20 years.

10          Q.     What is the estimated energy savings for a weatherized home?

11          A.     Weatherizing a home cuts both heating and cooling costs, with resulting  
12 estimated annual natural gas savings as high as 23%, and annual electricity savings at  
13 about 12%.

14          Q.     What type of cost/benefit ratio do weatherization measures have?

15          A.     Various studies have estimated the cost/benefit ratio of weatherization to  
16 be as high as 3.71 for each dollar invested. I have not reviewed any documentation that  
17 does not show a positive cost/benefit savings.

18          Q.     What are some of the benefits of weatherization for the household?

19          A.     Performing needed weatherization should lower the household's energy  
20 bills. This will enable the household to use the same amount of energy and spend less,  
21 or, if the household has been turning down the furnace in an attempt to keep the bill low,  
22 the household can use an adequate amount of energy for the same price.



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1 Another benefit is the improvement in the safety and health of the occupants.  
2 During the weatherization audit and work, inspectors also measure carbon dioxide levels  
3 in the home, make sure that there is an adequate number of working smoke alarms, and  
4 detect dangers such as faulty wiring or unsafe appliances. Once the weatherization is  
5 completed, the safety of the household is increased due to the decreased use of hazardous  
6 heat sources, such as a damaged furnace, old electric space heater or unsafe woodstove,  
7 which reduce the possibility of a fire or other accident.

8 Q. Does weatherization have any benefits for the state or local economy?

9 A. Weatherization can benefit the state/local economy in several ways. First,  
10 the improvements to the housing stock increases property values, and the area's tax base.  
11 In addition, local workers are trained to do the weatherization, and many of the supplies  
12 are bought locally, which stimulates the local economy.

13 After weatherization, some of the dollars that used to go to pay the utility bill can  
14 now be spent locally. Approximately 70% of a Residential customer's bill goes to pay  
15 for the natural gas itself, with the other 30% paid to the Missouri utility for delivery.  
16 Since Missouri is not a natural-gas producing state, most of the 70% of gas revenues will  
17 leave the state. If a customer's bill is lowered, the amount of money that can stay in the  
18 local and state economy is increased.

19 Finally, weatherization can help even those low-income Missourians whose  
20 homes have not been weatherized. Poor Missourians whose homes have been  
21 weatherized will have lower bills, allowing the scarce energy assistance dollars to go to  
22 those whose need is even greater.

23 Q. Can weatherization benefit higher income customers?

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1           A.     Weatherization reduces expenses associated with the collection activities  
2 of the utility, since households are better able to pay their bill in full. It reduces the dollar  
3 amount of late payments and the amount of uncollectible expense. Disconnection and  
4 reconnection expenses are decreased. All of these actions benefit the other utility  
5 customers. These types of savings must be tracked by the Staff and Company to  
6 determine the level of benefits this program will provide to all customers of Aquila, Inc.'s  
7 Missouri customers.

8           Q.     Aside from utility-sponsored programs, is there any other source of  
9 weatherization funds for households in Missouri?

10          A.     Yes. The Missouri Department of Natural Resources provides  
11 weatherization through its Low-Income Weatherization Assistance Program (LIWAP.)  
12 This program has been in existence since 1977.

13          Q.     Please describe the program.

14          A.     LIWAP uses funds from the Department of Energy to weatherize eligible  
15 households. To participate in this program, households must:

- 16               • Be at or below 150% of the Federal Poverty Level (FPL).
- 17               • Apply for LIHEAP assistance.
- 18               • Reside in a home that is structurally sound enough to be weatherized.

19  
20          Q.     Why does Staff believe that Sedalia would be a good choice for this type  
21 of program?

22          A.     Staff looked at various characteristics of the gas territories that Aquila Inc.  
23 serves, and it appears that the Sedalia area would provide a good base for an experimental  
24 program that includes weatherization. First, about 80% of the homes in Sedalia are

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1 heated with natural gas. That's quite a bit higher than the state average of 57.5%.  
2 (Source, United States Census Bureau.) Second, the housing stock in Sedalia is relatively  
3 old, especially that of the lower-income residents. Of home-owners with income below  
4 the FPL in 1999, 85% lived in a home that was built before 1970, compared to 59% state-  
5 wide. The comparison for renter-occupied housing units for this income category is less  
6 dramatic, 58% vs. 54% statewide. The age of the house is an important factor, because  
7 homes built before the energy crisis of the mid-70's are more likely to lack adequate  
8 insulation and other energy-saving features.

9 Finally, Staff met with the Missouri Valley Community Action Agency  
10 (MVCAA), which serves this area. MVCAA currently administers the LIWAP funds,  
11 and can provide outreach and weatherization services with a minimum of added  
12 administrative costs and start-up time and activities.

13 Q. How should the weatherization program be structured?

14 A. Staff believes that it would be appropriate to offer energy audits and  
15 weatherization services to households whose income is in the range of 50% - 125% of the  
16 FPL. Other than the income level criteria, which is somewhat narrower than the Federal  
17 program, we believe that the program should be structured the same as the LIWAP to  
18 facilitate ease of administration.

19 Q. What if a customer's home is so structurally unsound that it cannot be  
20 weatherized?

21 A. If the customers' home cannot be weatherized due to the condition of the  
22 residence, the customer will not qualify for the experimental program, but will be  
23 referred to other programs for which they may be eligible.

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1 Q. Are there other benefits to combining this program with existing  
2 weatherization programs?

3 A. Yes. MVCAA has a waiting list for the LIWAP weatherization program.  
4 Some of these applicants are Aquila gas customers. Since this program is aimed at  
5 Aquila's gas customers, it will shorten not only the waiting period for these customers,  
6 but also the waiting time for all other residents on the waiting list.

7 Q. Does this conclude your direct testimony?

8 A. Yes

CASES FILED BEFORE COMMISSION

<u>CASE NO.</u>	<u>COMPANY</u>
GR-90-50	Kansas Power and Light
GR-90-120	Laclede Gas Company
GR-90-152	Associated Natural Gas
GR-90-198	Missouri Public Service Gas
GR-91-249	United Cities Gas Company
GR-91-291	Kansas Power and Light
GR-92-165	Laclede Gas Company
GR-93-42	St. Joseph Light and Power - Gas
GR-93-47	United Cities Gas Company
GR-93-172	Missouri Public Service Gas
GR-93-240	Western Resources
GR-94-220	Laclede Gas Company
GA-94-127	Tartan Energy Company
GR-95-160	United Cities Gas Company
GR-96-193	Laclede Gas Company
GR-96-285	Missouri Gas Energy
GR-99-42	St. Joseph Light and Power - Gas
GR-2002-356	Laclede Gas Company
GR-2003-517	AmerenUE

Exhibit No.:

Issues:

Witness: Anne E. Ross

Sponsoring Party: Mo PSC Staff

Type of Exhibit: Direct Testimony

Case No.: GR-2004-0072

Date Testimony Prepared: January 13, 2004

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY OPERATIONS DIVISION**

**DIRECT TESTIMONY**

**OF**

**ANNE E. ROSS**

**AQUILA, INC. D/B/A AQUILA NETWORKS MPS  
AND AQUILA NETWORKS L&P**

**CASE NO. GR-2004-0072**

**Jefferson City, Missouri**

**January 2004**

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In the Matter of Aquila, Inc. d/b/a Aquila )  
Networks - MPS and Aquila Networks - )  
L&P Natural Gas General Rate Increase )

Case No. GR-2004-0072

**AFFIDAVIT OF ANNE E. ROSS**

STATE OF MISSOURI     )  
                                  ) ss  
COUNTY OF COLE     )

Anne E. Ross, of lawful age, on her oath states: that she has participated in the preparation of the foregoing testimony in question and answer form, consisting of 19 pages of testimony to be presented in the above case, that the answers in the foregoing testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

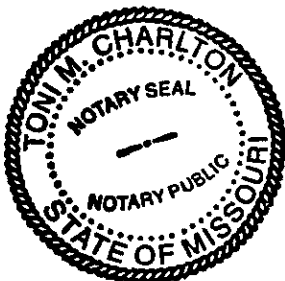
*Anne E. Ross*

Anne E. Ross

Subscribed and sworn to before me this 12th day of January, 2004.

*Toni M. Charlton*

Notary Public



TONI M. CHARLTON  
NOTARY PUBLIC STATE OF MISSOURI  
COUNTY OF COLE  
My Commission Expires December 28, 2004

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1 **WHY PROGRAMS FOR LOWER-INCOME CUSTOMERS ARE NEEDED**

2 Q. Why does the Commission need to set up a special program for lower-income  
3 natural gas customers?

4 A. Lower-income customers are increasingly finding themselves unable to pay  
5 their full gas bills. There have been major changes in the natural gas market in the past 10  
6 years, and the price of the commodity has risen dramatically. Schedule 1 attached to this  
7 Direct Testimony shows the level of the Purchased Gas Adjustment of Aquila - MPS -  
8 Southern system from November 1993 - November 2003. As one can see from the graph, the  
9 purchased gas price was approximately 35¢/Ccf in 1993 and was approximately 80¢ last May.  
10 That's a 133% increase. To put this in perspective, in the same time period, the minimum  
11 wage has increased from \$4.25 to \$5.15, a 21% increase.

12 Q. Do you have any real evidence that Aquila's gas customers are having  
13 increasing problems paying their bill?

14 A. Yes. In the Aquila - MPS districts, the balance in the Uncollectible account  
15 has gone up 1,164% in the past 10 years.

16 Q. Do you believe this increase in uncollectibles can somewhat be attributed to  
17 low-income customers?

18 A. Yes. The inability of these customers to pay their full bill is more than a  
19 personal or social problem - it is a revenue problem for the utility, and ultimately a cost borne  
20 by other customers. Arrearages, written-off bad debt, customer service and collection  
21 expenses, the costs of disconnecting service - all are costs driven by customers' inability to  
22 pay, and are factored into the rates paid by all customers.

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1 Q. Have you seen any evidence that taking action to make customers' bills  
2 affordable lowers the level of the Company's expenses in a cost effective way?

3 A. Yes. It should be noted that Missouri is just beginning to address this problem  
4 compared to other states. In the next several years, the Commission Staff should have a  
5 considerable amount of information to better evaluate future programs.

6 For example, a 1997 Order of the Pennsylvania Public Utility Commission stated that,  
7 "Given the result of impact evaluations already reviewed, we expect that EDCs [Electric  
8 Distribution Companies] will choose to enhance their CAPs [Consumer Assistance Programs]  
9 as a cost effective strategy for serving low-income customers." (Final Order Re: Guidelines  
10 for Universal Service and Energy Conservation Programs, Made Pursuant to 66 Pa. C.S,  
11 Sections 2803, 2802 (17), 2804(8) and 2804(9), Docket No. M-00960890F00100, issued  
12 July 7, 1997)

13 According to an article in the Northwest Energy Coalition Report, Public Utility  
14 Commissions in Pennsylvania, New York, and Wisconsin, "...recognized that utility  
15 investments in bill assistance benefit both shareholders and other ratepayers by reducing  
16 utilities' costs." (Volume 17, Northwest Energy Coalition Report, No. 10 @ p.3)

17 In their evaluation of the Oregon Energy Assistance Program (OEAP), a program  
18 providing regular, and/or crisis, bill-paying assistance to low-income households, Quantec LC  
19 concluded that from the company and ratepayer perspective, three year benefit/cost (b/c)  
20 ratios ranged from 0.96 b/c in year one to 1.61 b/c in year three, with societal/Oregon b/c  
21 ratios of 1.03 b/c to 1.71 b/c. (Table V.2). Benefits were measured by looking at, among  
22 other things, the reduction in arrears, terminations, collection activities, and shutoffs.

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1 Q. Won't lowering the amount that customers must pay for their energy then  
2 lower the amount the utility collects?

3 A. No; in fact, it may very well increase the amount collected. An evaluation of  
4 the Guarantee of Service Plan, a Percentage of Income Payment Plan (PIPP), initiated by  
5 Clark County, WA, Clark Public Utilities, and NW Natural Gas, found that before the  
6 Guarantee of Service Plan (GOSP) program began, low-income customers paid about  
7 \$29/month to the utility; after participation in the program, average monthly payments  
8 increased to \$52/month. (NW ECR; 17/10, p. 1) The study estimated that, by the third year,  
9 the utility had saved about \$300,000 as a direct result of a 36% decline in the amount written  
10 off due to non-payment (NW ECR; 17/10, p. 1) and concluded that "...most impressive was  
11 the fact that low-income customers themselves paid more once they felt their utility bills were  
12 under control." (Volume 17, Northwest Energy Coalition Report, No. 10 @ pp.3-4)

13 In "Low Income Consumer Utility Issues: A National Perspective," a 2000 report by  
14 Jerrold Oppenheimer and Theo MacGregor, the authors comment that "Thus, if the bills are  
15 made more affordable, experience demonstrates that low-income customers in general will  
16 pay more of their bill. As arrearages grow, low-income customers are apt to become fearful  
17 of ever getting out from under their debt...In fact, that customer is likely to become  
18 discouraged and to stop making any payments at all."

19 **WHO ARE THESE CUSTOMERS?**

20 Q. Are there different types of low-income customer (LIC's)?

21 A. Yes. The Staff believes there are three general types of LIC's.

22 Q. Please describe the different types of LIC's.

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1           A.     The first type of LICs are households with extremely low or no income. These  
2 are people who will probably never be able to pay their gas bills, or even a portion of them, no  
3 matter what the price. They are unable to obtain sufficient income and use it to pay their  
4 utility bills. Perhaps they are elderly, with little retirement income, or disabled, or mentally or  
5 physically ill, or maybe they just can't hold a job. In addition, there are households who just  
6 refuse or can't pay their heating bill regardless of the amount of the bill. Regardless of this,  
7 these households need heat in the winter.

8           The second group has a source of income, but it is not sufficient to pay a significant  
9 portion of their energy bills, especially in the winter. These households were unable to pay  
10 their full gas bills before the increase in natural gas prices, and are even further behind  
11 currently. These households must rely on energy assistance from Community Action  
12 Agencies to attempt to stay current with their energy bills. Only through the assistance from  
13 these agencies can this customer group continue to receive utility service.

14           The third group is composed of customers who have a steady source of income but  
15 earn barely enough to meet their families' basic needs; for example, senior citizens on a fixed  
16 income, and the 'working poor' or 'new poor', as I have heard them characterized. An  
17 increase in the price of a necessity, like natural gas, can create a situation where these  
18 customers can no longer pay their utility bills without foregoing other, equally important  
19 needs, like food or medical care. Unlike the households in group two above, these LICs  
20 usually do not qualify for energy assistance because of their annual income. However, these  
21 customers continue to struggle to stay current with their energy bills.

22           Q.     Please describe your definition of "low-income customers" for this program.

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1           A.     For purposes of this program, the term "low-income customer" or household  
2 refers to households with income from 50% - 125% of the Federal Poverty Level (FPL).  
3 Schedule 2 attached to this Direct Testimony shows the program's income range for various  
4 household sizes.

5           Q.     For purposes of the Staff's program, what study area has the Staff chosen?

6           A.     The area which includes Sedalia, Missouri.

7           Q.     What do you know about this group of low-income customers that reside in  
8 Sedalia, Missouri?

9           A.     Utilities do not normally collect income or other detailed demographic  
10 information on their customers, and, in fact, increased information gathering on the  
11 participants is a necessary component of the evaluation of Staff's program.

12           Using 2000 U.S. Census data, I can describe characteristics of the population of  
13 Sedalia, Missouri. Since over 80% of the households in Sedalia heat with natural gas, I  
14 believe that this information is going to be representative of the Aquila natural gas customers  
15 in Sedalia. One caveat is that Census data measures poverty at 100% of the FPL, so any  
16 statistics from that source will be statistics of households from 1 - 100% of the FPL, unless  
17 otherwise noted. The upper income level of Staff's program is 125% FPL.

18           Q.     What are some of the general characteristics of Sedalia residents?

19           A.     The 1999 median annual household income in Sedalia was \$28,641,  
20 substantially lower than the state median income of \$37,934. The unemployment rate in  
21 Sedalia (Pettis County) was estimated at 5.1% in December 2002. This is slightly above the  
22 state unemployment rate of 4.8% (Missouri WORKS! Labor Market Information). The  
23 higher unemployment rate in Pettis County was reflected in the count of households receiving

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1 wage or salary income of some kind - 77% statewide, but only 72% in Sedalia. The rankings  
2 were reversed for households receiving Social Security income, with 33% of households in  
3 Sedalia receiving this form of income, as compared to only 28% of households statewide.

4 Looking at the poverty statistics for Sedalia is even more definitive. About 22% of the  
5 population in Sedalia has income at or below 125% of the FPL. Almost 30% of children five  
6 and under live in a household with income less than 100% FPL, as do 17% of those 65 years  
7 and older.

8 Q. What are some of the factors that exacerbate the inability of these households  
9 to pay their utility bill?

10 A. Low-income households spend a much larger percentage of their income on  
11 energy compared to moderate - or higher-income households. In other words, they have a  
12 much larger energy burden. While a low-income family can scale down some expenditures  
13 (i.e., buy an older car, shop at thrift shops), they can only cut back so far on the amount of  
14 natural gas required to keep their family warm in the winter, which gives them little control  
15 over their bill. Compounding the problem, the homes of many of these customers are older  
16 structures with inadequate insulation, inefficient furnaces, and other problems which make the  
17 gas usage of the household unnecessarily high. Higher efficiency appliances, or measures  
18 such as insulation, will save money over the life of the improvement, but the initial  
19 investment is currently not within their income levels.

20 Q. Gas bills fluctuate during any year. Does this pose an additional problem for  
21 LIC's?

22 A. Yes, bills which fluctuate to the degree that gas bills do generally affect many  
23 households regardless of income level. These types of fluctuations severely affect the LIC's.

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1 Many of these customers have fixed incomes, and cannot deal with the large fluctuations in  
2 gas bills. Many lower wageworkers live paycheck to paycheck. They are in a financial  
3 position where they have little or no savings, and most likely have few sources of  
4 supplemental income, such as loans from family members. Many times, these customers are  
5 able to stay current on their gas bills during the summer but cannot pay their entire gas bill  
6 during the winter. This creates frustration and a feeling of hopelessness. To complicate  
7 matters even more, during the summer when the customer could begin to pay down their gas  
8 arrearages, many customers are facing the challenge to stay current on their electric bills.

9 Q. Wouldn't budget billing solve this problem?

10 A. Even a levelized billing plan doesn't solve the problem. While it keeps the  
11 household's bill down in the winter months, they will owe more than usual in the summer  
12 months, when they are trying to cool their houses and pay their higher electric bills. This  
13 problem can be remedied somewhat if a customer who receives both gas and electric service  
14 from the same utility (as do the Sedalia customers) would agree to budget billing for both gas  
15 and electric.

16 Q. What is one possible customer response to this type of chronic income  
17 shortfall?

18 A. The customer pays the bills. They may go without other necessities, such as  
19 medical care, food, or clothing but, if at all possible, they pay the bill.

20 Q. What do you believe finally happens with those customers who find that they  
21 cannot stay current with paying their bills and start accumulating large bill arrearages?



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1           A.     Many LICs with large arrearages will continue to make some payment, far  
2 below their current bill, but yet some amount of money in an effort to continue to receive gas  
3 service and discharge their obligation.

4           Q.     What about the rest of those payment-troubled households?

5           A.     I believe that many eventually give up. The situation begins to appear  
6 hopeless so the customer pays other, more manageable bills.

7           Q.     How can a household receive gas heating service if they do not have the  
8 income to pay for it?

9           A.     There are a variety of ways – by using emergency energy assistance, by  
10 changing the name on the account, by moving, by discontinuing gas service in the warm  
11 months, and many others that I'm not even aware of.

12 **HISTORY OF LOW- INCOME ASSISTANCE ACTIVITIES AT THE PSC**

13          Q.     What has been the Public Service Commission's response to this problem?

14          A.     The Cold Weather Rule was implemented by the Commission in 1977, with an  
15 Emergency Cold Weather Rule enacted during the winter of 2000-2001. Furthermore, the  
16 Commission has been actively involved in several task forces and committees, such as the  
17 Missouri Energy Task Force, the Natural Gas Commodity Price Task Force, and the  
18 Committee to Keep Missourians Warm, as well as other activities, such as the recently held  
19 Town Hall Meetings in many areas around the state. The Staff believes that as a result of the  
20 Cold Weather Rules, this Commission has recognized the need for space heating for LICs  
21 during the winter period. However, this program does not provide the protection for the  
22 customer once the winter season has passed and the spring season arrives. At this time, many  
23 LIC's have large arrearages and face the immediate threat of losing their gas service. The

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1 purpose of this testimony is not to suggest any changes to the current Cold Weather Rule  
2 Program, but only to point out that if the pilot program as proposed by the Staff is accepted,  
3 that many LIC's who must deal each year with the possibility of gas service disconnection  
4 may actually become full time current paying customers.

5 Q. What has been the response of the natural gas utilities to this growing  
6 problem?

7 A. Missouri Gas Energy (MGE) implemented an Experimental Low-Income Rate  
8 program as part of the settlement of Case No. GR-2001-292. This program assists MGE  
9 households at 100% of the Federal Poverty level and below by applying a monthly credit to  
10 their bill. Empire District Electric Company has also implemented a program identical to the  
11 one described above. These programs have not yet been evaluated and conclusions presented  
12 to the Commission by the Staff and Companies.

13 AmerenUE has the ongoing Dollar More program, and, as a result of the settlement of  
14 Case No. EC-2002-1, AmerenUE, as part of the agreement, committed to make an initial  
15 \$5 million contribution to its Dollar More Program on September 1, 2002, and continues to  
16 contribute \$1 million more each year for the next four years. AmerenUE also created a  
17 weatherization fund for its low-income customers, and initially funded it with \$2 million on  
18 September 1, 2002, and continues to contribute an additional \$500,000 each year for the next  
19 four years. As a result of AmerenUE's initial \$5 million contribution to Dollar More,  
20 AmerenUE initiated a program called "Clean Slate," which provided 100% arrearage  
21 forgiveness to certain ratepayers. The results of the Clean Slate Program have not been fully  
22 compiled and evaluated.

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1 Q. What are the bill assistance programs currently available to Aquila's  
2 low-income natural gas heating customers?

3 A. There are two main programs: Energy Assistance (EA), and the Emergency  
4 Crisis Intervention Program (ECIP).

5 Q. Please describe the EA program.

6 A. The EA program uses Federal Home Energy Assistance Program (LIHEAP)  
7 grants to provide one-time (per heating season) assistance to households who:

- 8 • Are at or below 125% of the current Federal Poverty level (FPL).
- 9 • Are responsible for the fuel bills.

10 This assistance can be applied to their primary heat source, and is a set dollar amount  
11 based on the type of fuel, region, household size, and income.

12 Q. Please describe the Emergency Crisis Intervention Program (ECIP)?

13 A. The ECIP program uses LIHEAP funds to provide emergency assistance to  
14 households that:

- 15 • Are at or below 125% of the FPL.
- 16 • Have received a shut-off notice from the utility. This requirement is  
17 relaxed if you are age 65 or older.

18 This assistance is the lesser of the amount required to maintain or reconnect service, or  
19 \$600, per heating season.

20 Q. Are these programs effective in getting a LIC to the point where they can pay  
21 their bill in full, and on time?

22 A. The information for that evaluation is currently not available. In order to  
23 assess the effectiveness of these programs, Staff needs to evaluate the effect on customer

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1 behavior and what happens with utility expenses such as bad debt and collection expenses.  
2 The Staff must analyze these factors prior to the household receiving aid, and after aid has  
3 been received. Without this tracking, no one really has an idea of how well bill payment  
4 assistance programs work, how they could be improved, and who benefits most from them.  
5 This type of information is being collected on customers who received aid through last  
6 spring's AmerenUE Clean Slate program. The MGE and Empire programs have not yet been  
7 evaluated, although information is being collected so that this can be done.

8 Q. Do you have any final comments on the bill-paying assistance offered in the  
9 current Federal and utility programs?

10 A. Yes, by paying a customer's bill, you are certainly helping them in the short  
11 term, but not really changing any of the factors that lead to unmanageable energy costs. If the  
12 customer is having a temporary financial crisis, this type of intervention might be appropriate.  
13 If, however, the household suffers from a lack of income sufficient to pay all of its bills, a  
14 longer term solution is needed.

15 Q. Currently, are there any long-term solutions being performed to aid LICs?

16 A. Yes, there is. AmerenUE, Laclede Gas Company and Aquila, Inc. sponsor  
17 Weatherization programs, from funds included in ratepayers rates.

#### 18 **STAFF'S PROPOSED WEATHERIZATION/ PROGRAM**

19 Q. What does Staff wish to accomplish with this program?

20 A. The goals of this program are:

- 21 • To provide an opportunity for the lower-income working and retired
- 22 citizens of Missouri to pay their bill on time, and in full.
- 23 • To improve the quality of life for our lower-income citizens.

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- 1           • To decrease the usage of low-income households by requiring  
2           weatherization.
- 3           • To analyze the effect of an affordable rate on the payment habits of  
4           low-income customers at various income levels.
- 5           • To provide data that will make it possible to analyze the effect of this type  
6           of program on utility costs related to arrearage and uncollectible balances  
7           of the utility, as well as on expenses for activities such as collection, non-  
8           payment disconnects, and customer contacts.

9           Q.    What are the main components of the program?

10          A.    There are three main components of the program. They are:

- 11           1)    Weatherization. Before a household can qualify for the program, it  
12           must be weatherized, if deemed necessary under the DOE standards;  
13           through an energy audit;
- 14           2)    Arrearage management. The household will enter into an agreement  
15           with the Company to pay off any existing arrearages at a payment to be  
16           set at no more than \$20/month, with the payment contributed by the  
17           customer being matched by the Company after six months of customers  
18           continuously paying their bill.
- 19           3)    An affordable rate. Households in the program will receive a  
20           discounted margin (non-gas) rate and a 25¢ per Ccf credit on their bill  
21           to be applied to their PGA costs for the winter (November 1-March 31)  
22           usage.

23          Q.    Why is weatherization the first of your main components?

1           A.    As I discussed in my Direct Testimony filed on January 6, 2004, the  
2 installation of permanent, cost-effective efficiency weatherization measures is an excellent  
3 long-term action to address the problem of unaffordable natural gas bills, and should be a part  
4 of any program designed to assist low-income customers in paying their utility bills.

5           **PROGRAM PARAMETERS**

6           Q.    What are the parameters of the program?

7           A.    The parameters are as follows:

- 8                   • If the customers' home cannot be weatherized due to the condition of the  
9                   residence, the customer will not qualify for the experimental program, but  
10                   will be referred to other programs for which they may be eligible.
- 11                   • A household that is weatherized using this program's funds is eligible, as is  
12                   any customer whose household income is less than 150% FPL and who is  
13                   weatherized using funds from another source, as long as the weatherization  
14                   is consistent with the Weatherization Assistance Program (WAP)  
15                   guidelines.
- 16                   • Households accepted for the project receive a discounted, per unit rate for  
17                   natural gas service in the winter months of November-March.
- 18                   • Household should be given budget counseling and be strongly encouraged  
19                   to sign up for budget billing on their Aquila gas and electric accounts.
- 20                   • The customer's bill, including arrearage repayment, must be kept current.  
21                   Customers will be allowed three late payment occurrences in the first year  
22                   of implementation of the program. The permissible late payment  
23                   occurrence will decrease by one for each succeeding year until year four

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1 when late payments will be treated as prescribed in the Company's policies  
2 and procedures.

- 3 • Customers on the program will be asked to annually provide information to  
4 the Commission, which may be obtained by questionnaire or by interview.
- 5 • Arrearage Management: For every consecutive six months on the program  
6 without a late payment, the Company agrees to reduce the customer's  
7 arrearage balance by the same amount the customer paid on that arrearage  
8 during the six-month period. In other words, the Company will match the  
9 amount of arrearage payment up to the amount the customer paid in a  
10 six-month period.
- 11 • Customers on the program will be eligible for other energy assistance  
12 funds, with the exception of ECIP.

13 Q. Why does the Staff want to include Aquila customers who have been  
14 weatherized by other programs?

15 A. By offering this rate to those LICs, the Company, Staff, OPC and DNR will  
16 have an even larger customer base upon which to measure many of the theories contained in  
17 this program. For instance, by including these customers in this program and tracking their  
18 results the parties will be able to better determine if 50% - 125% FPL is an appropriate  
19 criteria for program eligibility, or if the FPL limit should be readjusted higher or lower.

20 Q. When would a customer exit the program?

21 A. The Staff would recommend that a current paying customer would continue on  
22 this program until that household reaches at least 150% FPL, and stays at that level for one  
23 year. This requirement would require Missouri Valley Community Action Agency

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1 (MVCAA) to verify the FPL of each participant annually. The Staff does not believe this to  
2 be a great administrative hardship to MVCAA.

3 **PARTICIPATION IN THE PROGRAM**

4 Q. What are the criteria for your program?

5 A. This experimental program is aimed at Aquila Networks - MPS gas customers  
6 in the Sedalia area whose household income is 50% - 125% of the FPL, and who agree to be  
7 weatherized using program funds or other weatherization funds. In addition, the program will  
8 be open to any Aquila customers in the 0 - 150% FPL range, if they have been weatherized in  
9 the past ten years, subject to the WAP guidelines.

10 Q. How did the Staff select this income range?

11 A. The Staff would like to analyze the effect of this type of program on groups of  
12 customers of various income levels, but in order to collect much information, the Staff need as  
13 many participants as possible. Aquila Networks, Inc. is not one of the large LDC's in the  
14 state, such as Laclede Gas Company or Missouri Gas Energy; thus, Staff's program is  
15 constrained by the smaller amount of funds available for the weatherization component. At  
16 \$2,500 per house, \$50,000 only weatherizes about 20 houses per year. By setting the income  
17 eligibility criteria at a level similar to the one used by the WAP, not only will customers  
18 weatherized with Aquila funds be eligible for the reduced rate and arrearage management  
19 component, but households weatherized by the WAP will be, as well.

20 Q. Do you think that there will be enough eligible customers to take advantage of  
21 the program?



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1           A.     Yes. With so many of the Sedalia households being heated with natural gas,  
2 and given the relatively small scale of this proposal, Staff believes that there will be sufficient  
3 participants.

4           **IMPLEMENTATION**

5           Q.     How much do you believe is appropriate to fund this program?

6           A.     As discussed in my Direct Testimony filed on January 6, 2004, Staff  
7 recommends that the weatherization part of the program be funded with \$50,000.

8           Q.     Are there any other costs associated with the program?

9           A.     Yes. The revenue loss associated with the rate discounts is a program cost.  
10 Staff proposes that this cost be recovered from other customers in their margin rates.

11          Q.     Who will administer this program?

12          A.     MVCAA currently administers the Missouri Weather Assistance Program,  
13 funded by DOE, as well as the federal LIHEAP and ECIP programs, so they have valuable  
14 experience with this type of program. By implementing this pilot program in addition to the  
15 existing program, administrative costs will be kept at a minimum, as will necessary start-up  
16 time and activities.

17               MVCAA will be responsible for taking applications, verifying household income, and  
18 providing the energy audit and weatherization to the participants. In addition, MVCAA has  
19 an office in every town of any size in the region, which will aid in outreach efforts.

20          Q.     Will this pilot program require additional work for Aquila?

21          A.     Yes, Aquila, as the Company sponsoring the program, will have an important  
22 role in tracking the actual results of this program. The tracking will involve customer data  
23 and will require Aquila to compile this data. Aquila, Staff and the Office of the Public

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1 Counsel (OPC) will monitor the program and begin analyzing the results after the program  
2 has been operating for one year. However, this additional work should not create a significant  
3 increase in administration costs to Aquila since the number of program participants is not a  
4 large number of customers.

5 Q. When does the Staff believe this program can be implemented?

6 A. The administrative details of the rate component of the plan will take a some  
7 time, but I believe if Staff, OPC, Aquila Networks - MPS and the Missouri Valley  
8 Community Action Agency work together in a timely fashion, the rates could be in effect  
9 going into the 2004-2005 heating season, with energy audits and weatherization beginning  
10 this summer.

11 **SUMMARY**

12 Q. Please summarize the Staff's position.

13 A. The Staff is proposing a low-income customer program with the hope that  
14 certain groups of low-income natural gas customers can become customers that are able to  
15 pay their bill in full every month. This program provides the customers an incentive for  
16 prompt payment. Arrearage forgiveness tied to successful payment, and the provision that the  
17 customers stay current on their bill to stay on the program gives the customer a strong  
18 incentive. Staff recognizes that this change in behavior and ability to pay will not happen  
19 overnight. Many of these customers have not been able to pay regularly in quite some time,  
20 and it will require some effort to get to that point. The program has addressed this behavioral  
21 change.

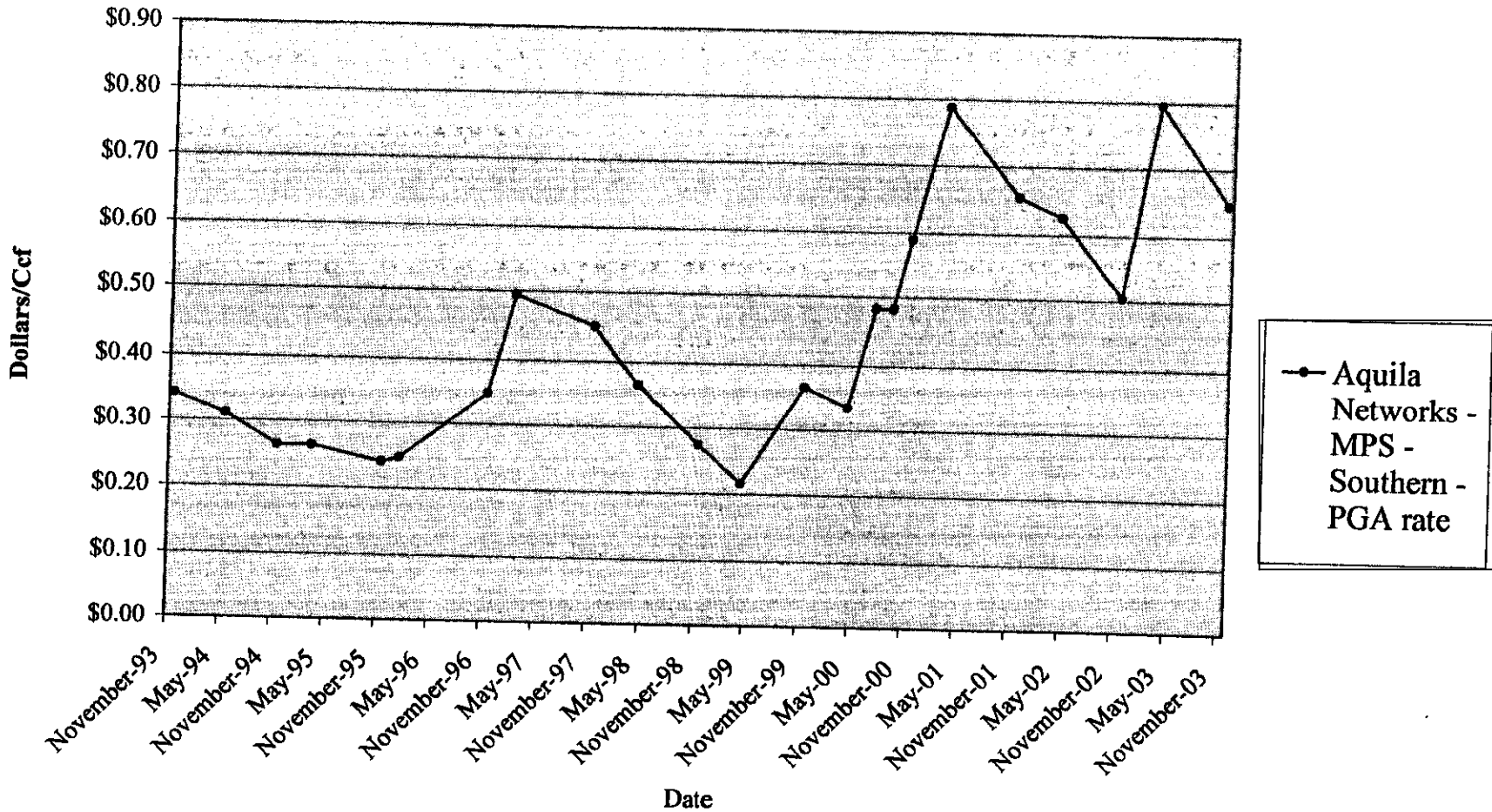
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1           The weatherization component of the program will result in lower usage and a more  
2 affordable bill, leading to both an increased ability to pay and an improvement in their quality  
3 of life.

4           Q.     Does this conclude your Direct Testimony?

5           A.     Yes.

**Aquila, Inc. D/B/A Aquila Networks MPS and Aquila Networks L&P**  
**Case No. GR-2004-0072**  
**Aquila MPS - Southern System - Historical PGA rate**



**Aquila, Inc. D/B/A Aquila Networks MPS and Aquila Networks L&P**  
**Case No. GR-2004-0072**  
**2003 Federal Poverty Guidelines**

<b>Size of Family Unit</b>	<b><u>50%</u> <u>of FPL</u></b>	<b><u>100%</u> <u>of FPL</u></b>	<b><u>125%</u> <u>of FPL</u></b>
<b>1</b>	<b>\$4,490</b>	<b>\$8,980</b>	<b>\$11,225</b>
<b>2</b>	<b>\$6,060</b>	<b>\$12,120</b>	<b>\$15,150</b>
<b>3</b>	<b>\$7,630</b>	<b>\$15,260</b>	<b>\$19,075</b>
<b>4</b>	<b>\$9,200</b>	<b>\$18,400</b>	<b>\$23,000</b>
<b>5</b>	<b>\$10,770</b>	<b>\$21,540</b>	<b>\$26,925</b>
<b>6</b>	<b>\$12,340</b>	<b>\$24,680</b>	<b>\$30,850</b>
<b>7</b>	<b>\$13,910</b>	<b>\$27,820</b>	<b>\$34,775</b>

**Source:** *Federal Register*, Vol. 68, No. 26, February 7, 2003, pp. 6456-6458